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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,150	07/25/2001	Gary R. DelDuca	47097-01080	6442

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EXAMINER

MADSEN, ROBERT A

ART UNIT PAPER NUMBER

1761

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/915,150

Applicant(s)

DELDUCA ET AL.

Examiner

Robert Madsen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37,87-90 and 161-171 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37,87-90 and 161-171 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. The Response filed November 2, 2005 has been entered. Claims 1-37,87-90,161-171 remain pending in the application.

***Claim Rejections - 35 USC § 112***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-37 , 87-90,161-171 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. See the reasons stated in the Office Action mailed August 2, 2005.

***Claim Rejections - 35 USC § 103***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. Claims 1-6,8-11,13-26,28-30,32-37,87-90,161,162,164-171 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carr et al. (US 6054153) in view of Woodruff et al. (US 4522835) and Koch et al. (US 3459117) and Shaklai (US 6042859).
7. See the reasons stated in the Office Action mailed August 2, 2005.
8. Claims 1,2,5-10,12-15,18-23,25-29,31-34,36,37,87-90,161-171 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breen et al. (US 5711978) in view

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of Woodruff et al. (US 4522835) and Koch et al. (US 3459117) and Shaklai (US 6042859) and Verbruggen (DE 1935566 A).

9. See the reasons stated in the Office Action mailed August 2, 2005.

### ***Response to Amendment***

10. The Declaration under 37 CFR 1.132 filed November 2, 2005 by Mr. Gary DelDuca is insufficient to overcome the rejection of claims. The term "turns brown in a natural time period", or specifically "natural time period" is not defined by Exhibit A. As evidenced by Exhibit A, light and storage temperatures affect the time period during which a meat turns brown (e.g. see the discussion of Taylor (1985) on Page 283). Thus, It is not clear whether the recited time period is observed during refrigeration or ambient storage, in the dark or under a light, or even with or without packaging. Neither the claims nor the specification define the conditions (e.g. temperature, light, with or without packaging) during which the meat "turns brown in natural time period". Thus, one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

### ***Response to Arguments***

11. Applicants' arguments with respect to the rejections have been fully considered but they are not persuasive.

12. With respect to the rejection under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, Applicants state that the portions "turns brown" of the phrase "turns brown in a natural time period"

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means that the piece of meat has some brown, but does not mean that the piece of meat has to be 100%. Neither the claims nor the specification define "turns brown" in any type of degree (some brown versus 100% brown).

13. Applicants further state that the "natural time period" cannot be uniquely defined because the color of meat pigment varies between the type of meat and the conditions for displaying such meat. Applicant is reminded that if such a term is not defined by the claim (as in the instant case), the specification does not provide a standard for ascertaining the requisite degree (as in the instant case) and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention (i.e. cannot be uniquely defined), the claim is *indefinite* under 35 U.S.C. 112,2<sup>nd</sup> paragraph.

14. With respect to the rejections made under 35 U.S.C. 103(a), Applicants contend that the prior art considered that CO fixed the color of the meat pigment, such as Sorheim, the FDA, and Dr. Hunt. Applicants further assert that the references relied on for teaching CO is non-fixed (i.e. Shaklai and Koch et al. ) do not teach or suggest "wherein the carbon monoxide associated with the raw meat within the first package is adapted to be removable such that the color of the meat pigment is not fixed and turns brown in a natural time period upon removal of the second package", and there is no motivation to combine these references. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

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15. The rejections do not rely on Shaklai and Koch et al. alone, but in combination with Woodruff et al., to provide the motivation for modifying Carr et al. or Breen et al. and including CO in the meat package. Shaklai and Koch et al. are relied on as evidence to show that (1) time it takes for a meat surface to brown after removal from storage with CO depends on the time the meat is exposed to CO and (2) CO associated with a meat's surface in a modified atmosphere package (i.e. such as the CO atmosphere taught by Woodruff et al.) is removably associated with the meat so that meat turns brown in a natural period. Specifically, Shaklai, as stated in the rejection, teaches the time it takes for a meat surface to brown after removal from storage with CO depends on the time the meat is stored with CO (e.g. in Examples 3 and 4) while Koch et al., as stated in the rejection, provides the evidence that contact with CO on the surface of meat for 7 days *will not* fix the meat color such that the meat turns brown in a natural time period of 3 days when the CO-containing packaging is removed from contact with the meat (Column 2, line 67 to Column 3, line 16). Thus, Shaklai and Koch et al., provide evidence that the packages of either Carr et al. or Breen et al. modified by Woodruff et al., who teaches surface contact of a meat with CO to maintain a red color, will have CO removably associated with the meat (1) depending on time it exposed to CO and (2) in a natural time period (i.e. since only the surface is affected by the CO).

16. Applicants state that CO has a greater affinity for hemoglobin than oxygen, and that Applicant's invention would not be expected to turn brown in a natural time period. However, Koch et al. teach meat that has been exposed to CO on the *surface* of meat for 7 days will turn the meat red, but it *will not* fix the meat color. The meat turns brown

in a natural time period of 3 days when the meat is exposed to oxygen (Column 2, line 67 to Column 3, line 16). Applicants further assert that there is no expectation in Shaklai that applying the levels disclosed in Woodruff would result in the meat browning in a natural period. Shaklai is relied on for teaching the time it takes for a meat surface to brown after removal from storage with CO depends on the time the meat is exposed to CO. Koch et al. actually provide an expectation that applying the gas disclosed in Woodruff to affect the *surface* of the meat would result in the meat browning in a natural period (e.g. 3 days after storing in contact with CO for 7 days).

17. Applicants argue that Koch et al. teach such a small quantity of CO for a large quantity of meat that it would not be reasonable that the non-surface meat pigments would have been exposed to CO. It is agreed that the CO treatment of Koch et al. is directed to the *surface* of the meat. Koch et al. teach that surface treatment will result in the meat browning in a natural period (e.g. 3 days after storing in contact with CO for 7 days) and Woodruff teaches the recited CO-containing atmosphere (0.1-3% CO, along with 20-60% CO<sub>2</sub>, 40-80% N<sub>2</sub>, and 0% O<sub>2</sub>) affects only the first 0.25 inch of the meat, or surface of the meat (column 1, line 63 to column 2, line 9). Thus, Koch et al. do suggest that meat treated by the method of Woodruff would also brown in a natural period, since it also affects the surface of the meat.

18. With respect to Sorheim, Whirpool, and Hunt, Applicant states that their teaching of the fixing of CO was not addressed. However, as stated in the previously mailed Office Action, Koch et al. teach browning in a natural time period (i.e. up to 3 days) red color remains 3 days after exposing a meat surface to CO for 7 days. That is, Koch et

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al. teach CO is not fixed, since the meat turns brown in a "natural time period". Also stated previously, Shaklai teaches the time period that the red color remains depends on the time the meat is exposed to the CO. Thus, the art of record does show that meat exposed to CO will brown within a natural period (Koch et al.) and is not fixed, depending on the level of CO and time exposed (Shaklai).

### ***Conclusion***

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

20. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Madsen whose telephone number is (571) 272-1402. The examiner can normally be reached on 8:00AM-4:30PM M-F.



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22. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (571) 272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

23. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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